Abstract of the Disclosure

A system and method indicate azimuth of a diver to a remote console. A compass sensor module on a headgear worn by the diver has a two-axis gimbal mechanism provided with a protective housing around ring and two orthogonal axis structures. A magnetic field sensor unit mounted on one axis structure provides magnetic field data signals representative of the azimuth faced by the diver. A processor section of the compass module connected to the sensor unit provides azimuth data signals from the magnetic field data signals. A data transmission module has a conductor extending from the compass module to an amplifier and cable for amplifying azimuth data signals and remotely transmitting them. An acoustic transducer in the data module can also transmit azimuth data signals as acoustic signals through water. The console connected to the cable and water receives and displays the remotely transmitted azimuth data signals.